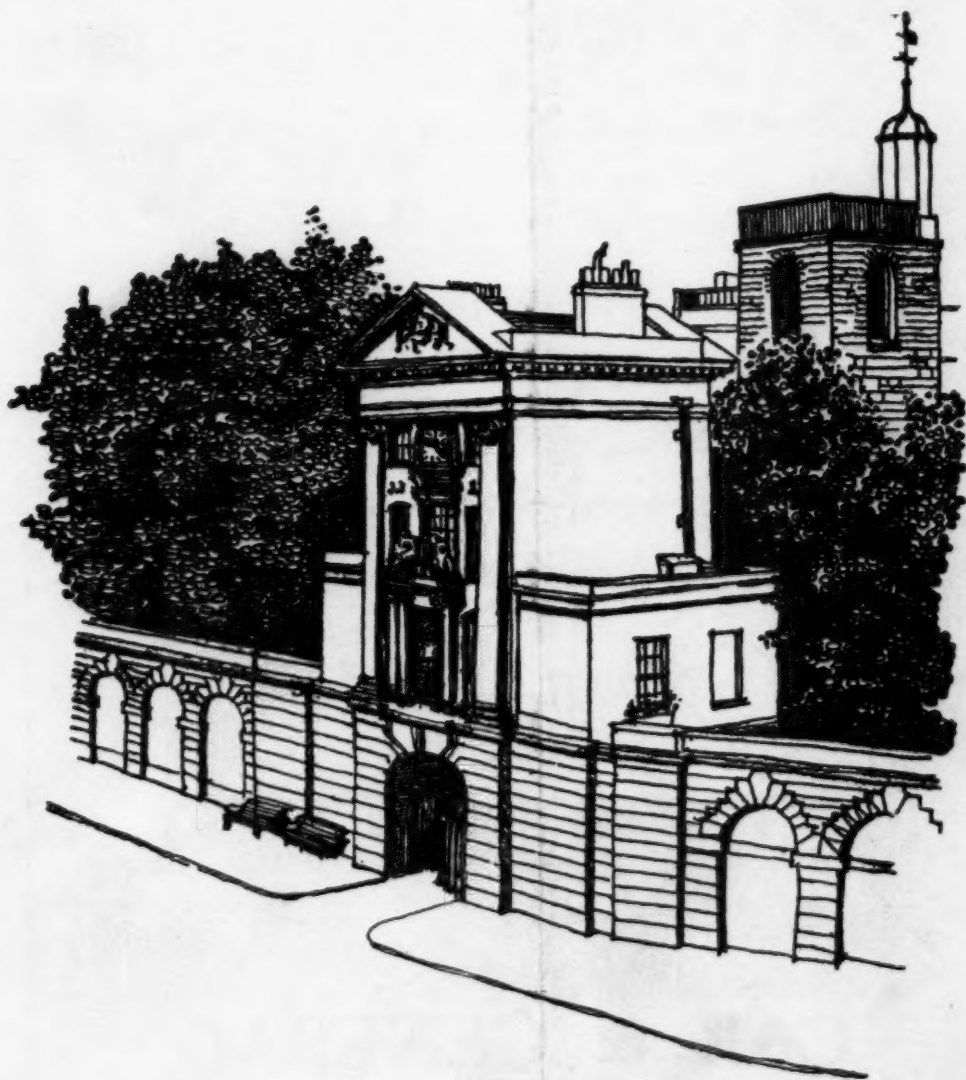


ST. BARTHOLOMEW'S HOSPITAL JOURNAL



VOL. LXI

JANUARY 1957

No 1

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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Although some of this argument may be conjectural, it is almost always wrong to reduce acidity below normal. The one safe therapy in the present state of knowledge is that which restores the acid level to within the normal tolerance and at the same time inactivates the pepsin. The only satisfactory compound known to us which does this is Bismuth Aluminate $\text{Bi}_2(\text{Al}_2\text{O}_4)_3 \cdot 10\text{H}_2\text{O}$, now available to the medical profession under the trade name Bislumina. This preparation has been placed in Category 3 by The Ministry of Health Standing Joint Committee and is prescribable on Form E.C.10.

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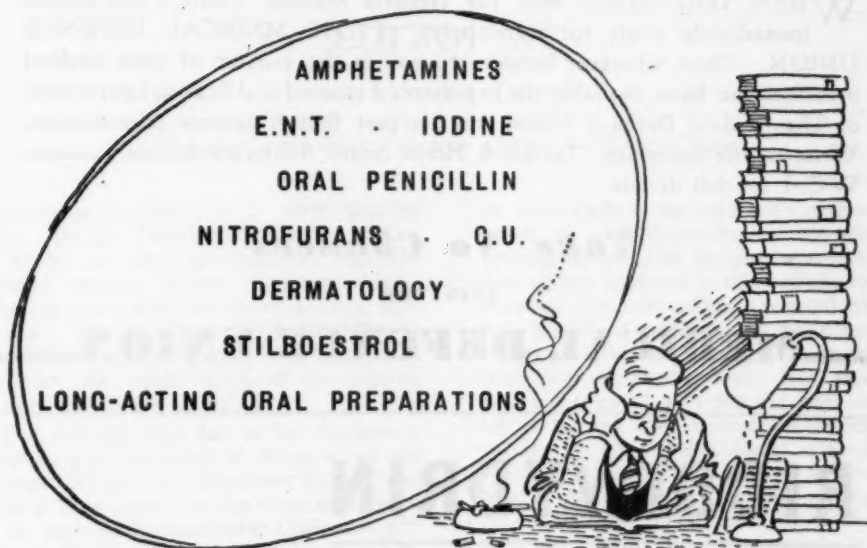
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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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EDITORIAL

"Presents," I often say, "endear Absents." — Charles Lamb.

CHRISTMAS at Bart's is a very singular affair. By this I don't mean that we wassail to excess or have an unusually sceptical attitude towards Father Christmas—these, after all, are matters for the individual conscience. The sphere in which we differ so acutely from ordinary people is that which underlies the whole spirit of the season; namely, Christmas shopping.

The Average Man has in his community centre a good selection of shops which are prepared to sell him Consumer Goods, and there is little doubt that the Consumer Good is the basis of the acceptable Christmas gift. Admittedly the Bart's man with an expeditionary turn of mind is in the same position—he can journey to some distant emporium and return home (in more or less comfort) with a satisfying quantity of diaries, waste-paper baskets, jig-saw puzzles, pots of spiced ginger, etc. But for the stay-at-home type it is a bizarre experience. So strange is the local merchandise that a present from Bart's must place the sender about as accurately as the characters of Pygmalion (or perhaps one should say My Fair Lady) were placed by a short conversation with Professor Henry Higgins.

Let us follow the fortunes of a sample shopper making a brief sortie from the hospital. It is probably a day rather nearer Christmas than it should be. It is raining. He has to be back for a round in three quarters of an hour. But in spite of all this he has worked himself up into a rare state of generosity and benevolence towards his friends and relatives, and he strides out of

the Main Gate in the pleasantly extravagant mood of a bulk-purchasing commission. Turning down Little Britain he comes to a shop selling linoleum in modern shades and patterns; the next offers 'selected skins'; and the third appears to be concerned mainly with the turning of overcoats. With the impetuous buyer this probably means a selected skin for the aunt on the top of the list and an overcoat-turning gift voucher for the relevant uncle. (What, one wonders, would actually *happen* to his overcoat?) A few yards on, past a generous offer of assorted office chairs, he reaches the shop of E. Stillwell, who advertises in large gilt letters on his door:

GOLD LACEMEN
TINSEL
FRINGES LACES
MASONIC APRONS
JEWELS
LODGE FITTINGS

How many sisters, aunts and sweethearts of Bart's men in the past must have come downstairs on Christmas morning to find a Gold Laceman standing, solitary and proud, beneath the Christmas tree! How many more, in musty chests in dark corners of their attics, have packages of faded tinsel, yellowing fringes, strange unkitchenlike aprons . . .

Passing the lonely busman's cap and woe-begone medals in Stillwell's window he turns left into Aldersgate Street. Here he is rapidly confronted by an assortment of Twist Drills (why a 'twist' drill—surely all drills twist?)—and an exotic selection of

quilted waistcoats on a generous Monthly Liesure Plan. A shop a little further on has a rather more subtle approach to the Christmas shopper. It sells stick-on labels of all types with such inscriptions as 'Genuine Pigskin,' 'Highest Quality' and 'Real English Crystal.' After a brief call here our shopper wanders on, perhaps not reluctant to come across a Woolworth's. But such a hope is more than futile. The next shop is devoted to 'Skins Accessories'—useless to the man who has ignored Selected Skins. And so past the pawn shop (remember it?) and into Long Lane where he could have his saw sharpened or his armature rewound. The far end of Long Lane has even less Christmas atmosphere, being devoted to cafés, turkeys and industrial laundry.

Turning through the Market and up St. John Street the prospect remains gloomy. Slicing machines, weighing scales (tactlessly not registering below 15 stone) and 'industrial wheels' offer little traditional festive cheer. At the entrance to St. John's Lane the situation even deteriorates slightly with cisterns, W.C.s and lead traps. (What fiendish person sets lead traps in his bathroom? Do they snap shut when the water rises wastefully above the six-inch level?)

Through the arch into St. John's Square he can buy watch components, but not in

the form of a handy 'make-it-yourself' kit. Here also, next door to Foggo Bros. the Diamond Setters, is a shabby little shop, whose peeling letters on the window proudly advertise:—

EMBROIDER AND REGALIA

Surely none but the dear ones of Bart's men have received regalia at Christmas? Our shopper stands outside the dreary window, imagining the luxurious finery stored within—perhaps rehearsing to himself the opening phrases of a fairy-land negotiation—"A shilling's worth of embroider, please" or "May I inspect a selection of your more expensive regalia?" . . .

He finally returns to the hospital laden with strangely shaped parcels, and wraps them hurriedly in the privacy of his room. The recipients are surprised or shrug their shoulders resignedly, depending on the years he has been at the hospital. It little matters if he has forgotten to enclose a note. They get some satisfaction from the achievement of recognition, and write back, "Darling Peter, Thank you, you Angel, for the simply fascinating twist drill/industrial wheel/lodge fitting you sent me for Christmas . . ." But they really have to fall back on the knowledge that it is the thought behind the gift that counts.



CANDID

CAMERA

Keep your powder dry!

Rugby Club Ball

This was held in the Recreation Room of College Hall on the evening of November 21. The Club were proud to welcome three of their Vice-Presidents, Mr. Capps, Mr. Coltart and Dr. Oswald, together with their wives. The refreshments were very kindly organised by members of the Ladies' Hockey Club, and after sampling these by candle-light everyone returned to the Recreation Room for the Cabaret, which was performed almost solely by members of the Club. Perhaps the outstanding item amongst a number of a high standard was a duet, both vocal and dancing, by Mackenzie and Lammiman, complete with policemen's helmets.

Afterwards Mrs. Capps kindly drew the winning tickets in the raffle, and great suspicion was aroused when the first ticket out was found to be owned by Mrs. Coltart. However, Mr. Coltart very kindly returned this prize and awarded it to Janice Swallow and John Dobson whom he adjudged to be the winners of a rock-and-roll competition. At 2 a.m. the first Rugger Ball for three years was regretfully brought to a close.

Out Patients Go Gay

On Friday, December 7th, the Medical and Surgical out-patient firms entertained their Chiefs at a mammoth firm party in College Hall. The recreation room was decorated to the nines. Music was supplied by the small combo of David Jones with Brian Richards on the clarinet. The tables groaned comfortably with food and drink. Notable among the dancers and floor-side conversationalists were Dr. Bourne, Dr. Cullinan, Mr. Taylor and Dr. Balme. It was generally agreed to be a pleasant variation on the more *intime* type of individual firm party, but not to be taken as a precedent for general collectivisation.

Piano Wanted

The Rugger Club have been a veritable hub of social activity recently, having held three hops already this season in addition to their Ball. Unfortunately the piano which has been a mainstay of these lively occasions is no longer available, and the financial experts of the Students' Union are gloomy about the possibility of hiring one economically. If any old Bart's man finds that a

piano is getting in his way around his house, the Rugger Club would be only too delighted to come and relieve him of it. Would the owners of lonely Hurdy-Gurdies please contact the Hon. Sec.

Congratulations

to Sir Thomas Dunhill, G.C.V.O., C.M.G., on his eightieth birthday.

In The Drink

Candid Camera this week catches Miss Janice Swallow receiving the Captain's Privilege from her hockey team. Another captain who might be sympathetic is Mr. R. Ridsdell-Smith, who had a more spontaneous experience of the same sort when captaining a Hospital Firefly in a recent inter-hospital event on Brent Reservoir. No discredit to Bart's, however, for every boat in the race either capsized or retired, and just to be in the picture the Race Controller fell in while getting into the rescue launch.

The crew, Mr. R. Gabriel, out for the first time, may well have thought that hospital sailing is a more energetic sport than it appears. But Mr. Ridsdell-Smith assures me that it is so long since he last capsized that he had almost forgotten how to swim. Most of us would probably prefer to risk Ladies' Hockey.

Journal Staff

Mr. J. T. Silverstone has resigned from the post of Editor. We hear that he now intends to devote himself more exclusively to Space Medicine, but the public will be pleased to hear that he will continue to serve them in the post of Honorary Treasurer to the Students' Union. We wish him equal success in his new office.

The Assistant Editor, Mr. J. S. Price, has been elected Editor in his place. Mr. J. K. Chong has been elected to the post of Assistant Editor.

Mr. L. J. Chalcroft who has been Manager for the past year has also resigned. The two editors who have worked with him have regarded him as a 'benevolent chancellor,' and he has been largely responsible for initiating a more luxurious era of *Journal* production.

Mr. C. J. Carr, the Assistant Manager, has been elected Manager in his place. Mr. M. I. D. Cawley has been elected Assistant Manager.

NOTICES

Literary Prize

THE Publications Committee have awarded the Literary Prizes for 1956 as follows:—

A prize of five guineas for the best scientific contribution to N. C. Roles for his paper 'An Unusual Case of Addison's Disease' (September).

A prize of five guineas for the best non-scientific contribution to J. G. Edwards for his article 'What do you think of America?' (March). 'William Palmer' by M. J. Linnett, *proxime accessit*, was awarded a prize of two guineas.

In view of the high standard of photography and drawing the Committee decided to ward two prizes of two guineas each for the best contributions in these fields:

Photography: 'Outside the Henry VIII Gate' by V. T. D. Major (March).

Drawing: Surgical Illustrations by A. M. Hall-Smith (June).

Sports Editor

The post of Sports Editor will fall vacant on April 1. Applications are invited for this post; they should be sent to the Editor by the end of February. No previous journalistic experience is necessary.

OBITUARIES

Charles William Archer

Charles William Archer, generally known to his friends as 'Chas', was educated at Rugby and Trinity College, Cambridge, from which he proceeded to Bart's in 1906, qualifying in 1909. He was House Surgeon to the late Mr. Bruce Clarke, and on conclusion of the appointment continued surgical studies at the hospital. He passed his F.R.C.S. (Eng.) in 1913. Subsequently he practiced in Harrogate and Hull, and during the 1914-18 war he served in the navy.

On the death of his father he retired from active practice and settled in Dorset. There he devoted his time to local county activi-

ties and sat on the bench as a Justice of the Peace. Throughout his life he maintained a keen interest in many types of engineering, especially joinery and wireless. He was seldom without a workshop, a good lathe, and a modern collection of tools. His engineering achievements included scale models of all sorts of engines and pumps (which, of course, all worked), and a good-sized reflecting astronomical telescope, the mirrors for which he ground himself.

He continued to keep in close touch with the hospital through membership of the Fountain Club, occupying the Chair as Master for 1935. His death on June 16 will be mourned by all his old colleagues and innumerable friends. Especially will he be missed at the Fountain Club at whose monthly dinners he was a most regular and popular member.

Godfrey Dru Drury

The death is announced of Dr. Godfrey Dru Drury, M.R.C.S., L.R.C.P., F.S.A. He was born on March 16, 1880, and educated at Monkton Combe School. After qualifying at Bart's in 1904, he held appointments of house-surgeon and house-physician at the Seamen's Hospital, Greenwich, and then settled at Corfe Castle, Dorset, where he was medical practitioner for 50 years.

He married Ethel Blanche Sims, also of Bart's, and there were two sons and a daughter of the marriage.

He was on the staff of the Cottage Hospital and the Children's Hospital at Swanage and served on the Dorset Local Medical Committee. His distinctions included the Freedom of the City of London and he was a Fellow of the Society of Antiquaries for 28 years. He became a national authority on Purbeck Marble, church brasses and effigies, and on Mediaeval charters and seals, with a wide knowledge of heraldry, and he was an expert on the history of Corfe Castle. With such attainments it is not surprising that he became chairman and later president of the Dorset Natural History and Archaeological Society and The Purbeck Society were fortunate to have him as their chairman. He served on the executive committee of

the Friends of Salisbury Cathedral and on the Dorset Church Building Committee, but, perhaps, the work nearest his heart was his chairmanship of the Salisbury Diocesan Advisory Committee, a post he held for twenty years.

For 25 years he served his parish church as churchwarden and made himself entirely responsible for the tidiness of the churchyard. There was scarcely an aspect of village life with which he was not connected and his interests also included the formation and leadership of the local cricket club.

The death of this well-known and much-loved figure leaves a gap that will long be felt in his own corner of England.

ANNOUNCEMENTS

Births

BENNETT.—On December 1, at Epsom District Hospital to Elizabeth and Dr. Antony Bennett, Fetcham, Surrey, a brother for Sally.

FAIRBAIRN.—On November 23, at St. Bart's Hospital to Meriel (*née* Herring) and Dr. David Fairbairn, a daughter (Lesley).

GARROD.—On November 5, to Gwyneth, wife of Dr. C. H. Garrod, of 30, Murdoch Road, Wokingham, a third son.

JONES.—On November 14, at St. Bart's Hospital, to Elaine (*née* Jessett) and Dr. Ralph Jones, a daughter (Helen May).

Engagements

ELLIOTT—HAYWARD. The engagement is announced between Charles Gavin Elliott and Elizabeth Ann Hayward.

EVANS—MASSINGBERD-MUNDY. The engagement is announced between Wyn Evans and Jane Massingberd-Mundy.

LLOYD—EYES. The engagement is announced between Dr. David B. Lloyd and Miss Eileen Eyes.

NICHOLSON—LAURIE. The engagement is announced between Mr. J. R. Nicholson and Miss R. T. Laurie.

WESTON—DANIELS. The engagement is announced between Dr. Peter Alexander Murray Weston and Miss Ann C. Daniels.

Marriages

RANDALL—HALL. On November 1, at Kensington, Dr. James Randall, M.B., B.S., to Aileen Hall of Rio de Janeiro, Brazil.

ROSS—CLARKE. On November 24, at the Queen's Chapel of the Savoy, James Keith Ross, F.R.C.S., to Jacqueline Annella Clarke.

Deaths

ANDERSON.—On November 11, Dr. Charles Anderson, of 14, Maida Vale, W.9. Qualified 1935.

BUCKLEY.—On November 14, at the General Hospital, Nottingham, William Buckley, F.R.C.S., aged 53.

COCKAYNE.—On November 28, at Tring, Herts, Edward Alfred Cockayne, O.B.E., D.M., F.R.C.P. Qualified 1909.

THOMSON.—On November 19, at 7, Twyford Avenue, N.2., Ian Fream Thomson, M.B., B.S., M.R.C.S., L.R.C.P., aged 38. Qualified 1942.

CALENDAR

Sat.	Jan.	5	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Rugger: v. Old Rutlishians (H). Hockey: v. London Hospital (H). Soccer: v. Old Cholmeleians (H).
Tues.	"	8	Abernethean Society: Research Papers.
Sat.	"	12	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty. Rugger: v. Taunton (A). Hockey: v. National Provincial Bank (A). Soccer: v. U.C.H. (H).
Mon.	"	14	Physiological Society: 'Genetics' by Prof. H. Grüneberg.
Wed.	"	16	Rugger: v. London University (A). Soccer: v. Charing Cross and Royal Dental (A).
Thurs.	"	17	Rugger: v. Guy's Hospital (Cup Match).
Sat.	"	19	Medical and Surgical Professorial Units on duty. Rugger: v. Cheltenham (A). Hockey: v. Blueharts (A). Soccer: v. St. Thomas's Hospital (A).
Sat.	"	26	Dr. G. Bourne and Mr. J. B. Hume on duty. Rugger: v. Oxford U. Greyhounds (H).
Mon.	"	28	Physiological Society: Professor G. Hadfield, title to be announced.
Sat.	Feb.	2	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty.

LETTERS TO THE EDITOR

GAME OF VIOLENCE

SIR,—I am, as usual at this time of year, kept busy repairing Rugger casualties. I came across the following extracts the other day, which I think may be of interest and amusement to the members of the Rugby Football Club and others.

These are the views of Sir Thomas Elyot, as pronounced in 1531. Football, he said, was "nothyng but beastely fury and extreme violence, whereof procedeth hurte, and consequently rancour and malice do remayne with them that be wounded."

Fifty years later Philip Stubbes wrote, "As concerning football playing, I protest unto you it may rather be called a freendly kinde of fight than a play or recreation; a bloody and murdering practice than a felowly sporte or pastime. For dooth not every one lye in waight for his adversarie, seeking to overthrowe him and to picke him on his nose, though it be upon hard stones? in ditch or dale, in valley or hil, or what place soever it be, hee careth not, so he have him down, so that by this meanes sometimes their necks are broken, sometimes their backs, sometime their legs, sometime their armes. They have sleights to meet one betwixt two, to dashe him against the heart with their elbowes, to hit him under the short ribbes with their griped fists, and with their knees to catch him upon the hip, and to pick him on his necke, with a hundred such murdering devices."

The game does not seem to have changed much in four hundred years!

Yours faithfully,

W. D. COLTART.

58, Harley House,
Regent's Park, N.W.1.

THE RAHERE CHOIR

SIR,—May I be allowed the courtesy of your columns to express my sincere appreciation of the beautiful recital given at All Souls, Langham Place, in November by the Boyd Neal Orchestra and the Rahere Choir.

The pitch of perfection of the choir was most noticeable. Their harmonious blend, their light and shade and wonderful clarity of diction were outstanding features of a recital which I shall long remember with pleasure.

The selection of their work was extremely tasteful. The renderings of the polyphonic Tudor period motets and anthems were really exquisite. Ave Verum Corpus by Byrd is a gem. The renderings of Purcell's Magnificat and Nunc Dimittis were extremely good. I feel in saving the good wine to the end of the programme in the shape of the Bach church cantata the choir excelled themselves. Their attack and expression were very marked and the effect of the massive

chorus passages was quite awe-inspiring and deeply moving.

The choir are very fortunate in their conductor, Richard Sinton. It was clear he had the choir under perfect control and the choir responded very effectively indeed. As an old Bart's man with a knowledge and love of church music, I feel very proud to feel our alma mater has within its walls such a spirited body of singers. Their further recitals will be eagerly awaited. It is significant to notice how well to the fore music is in the two Rahere foundations of church and hospital. The choir of the old priory church enjoys a very high reputation of cathedral standard.

Thanking the choir and Mr. Sinton for a wonderful evening,

I am, Sir,

Yours sincerely,

J. B. GURNEY SMITH.

Fellow, Incorporated Guild of Church Musicians.
Royal Earlswood Institution,
Redhill, Surrey.

CASSEL NOT CASSELL

SIR,—I feel impelled to bring to your notice a most unfortunate misprint in the November issue of *St. Bartholomew's Hospital Journal*.

The name of the hospital referred to several times in the journal is spelt Cassel, and not Cassell. This latter spelling may lead to an error of association (however free), confusing the hospital with a certain pill-producing gentleman whose therapeutic value, psychic or somatic, is to say the least somewhat questionable.

Furthermore I see that the title of the article on page 357 contains a mis-spelling of the word, psychological.

Could it be that there is a certain unconscious hostility towards this subject in your editorial office?

Yours faithfully,

ELIZABETH BARNES, S.R.N.

until recently, ward sister at The Cassel Hospital.
30 Steele's Road,
N.W.3.

We apologise to all associated with the Cassel Hospital for the mis-spelling in the November issue. We should like to point out, however, that far from having an 'unconscious hostility' towards psychology we have a very conscious interest in the subject, as a consideration of the contents of the November Journal might suggest. In fact some members at Bart's have accused us of being much too sympathetic to what they derisively dismiss as 'trick-cycling'. — EDITOR.

ASPECTS OF LIFE ON A TEA ESTATE

by Pamela A. Lucas

COUNTRY AND PEOPLE

IN THE Central Province of Ceylon at an elevation ranging from four to five thousand feet you will find the tea estate I am about to describe. Its total area is 858 acres and from most parts of the estate you can see Adams Peak 7,360 feet above sea level, an object of veneration to many religions.

The south of the estate rises to 5,000 feet and meets the jungle covering the summit of the overshadowing hill, while on all other sides are to be seen neighbouring tea Estates. It is said that wild life in these upcountry jungles includes leopard, deer, boar, monkeys and many varied smaller animals and birds. There are many stories told of the elephants that were in this region during the last century; but with the opening up of jungle to make way for first coffee, then tea, they have all emigrated to lower regions. Snakes, mostly harmless types, are sometimes seen in the tea, but most of the more deadly varieties are only to be found below 3,000 feet.

The capital and main seaport of Ceylon, Colombo, is 100 miles to the west, a three and half hours journey by road, while Nuwara Eliya at 6,000 feet, although only 46 miles away, is a two hour car journey. The roads being very winding and narrow and the necessity of going round a range of hills instead of over them, accounts for the lengthy time taken on all car journeys. There are railways but the network is not widespread and one usually needs to travel several miles by road before reaching a station.

Pamela A. Lucas

Pamela Lucas (née Broad) S.R.N. trained at Bart's from 1949 to 1954, and shortly afterwards went to Ceylon as a nursing sister to a private nursing association. She married a tea planter in March last year.

At the moment there are also three other Bart's nurses in Ceylon.

The estate is divided into three divisions with a total tea-bearing acreage of 757 acres, the remaining 99 acres being composed of fuel clearings, rocks, roads, etc. The smallest of the three divisions is under the supervision of a Ceylonese assistant manager who is responsible for it to the estate's European manager.

There are 870 labourers employed of whom only fifteen are Sinhalese, the remainder being Tamils. The Sinhalese is a citizen of Ceylon, and most are Buddhists, while the Tamils have come from India or are of Indian parents who immigrated from India, and mostly profess to be Hindu. This difference of religion accounts for variation in dress, habits and character. The Tamils were originally brought from South India to work on tea estates as they are a harder-working people than the Sinhalese. Also they are happier working in the cooler up-country climate. The Sinhalese does not like the cold or rain, quite an important factor as at times during the monsoon period there may be twelve inches of rain in one day!

TEA PRODUCTION

The labouring coolies, whose ages range from fifteen to sixty plus years, live in 'lines' on the estate. These lines are one-storeyed tenements, comprising one or two rooms, with perhaps twenty tenements in a row. Other estate workers such as the factory teamaker and office clerks live in detached bungalows surrounded by a small garden. The field labourer works from 7.30 a.m. till 4.30 p.m. with a break from 12 noon to 1.30 p.m. six days a week. Men, women and children over the age of fourteen years work together plucking tea, receiving an average weekly wage of one guinea, thirteen shillings and twelve shillings respectively. The heavier work of manuring, forking, pruning and lopping of shade trees is done by the men. The lighter work of

sifting the manufactured tea in the factory is carried out by the older women. The ever-needed task of weeding is done on contract, that is an area of land is given to a labourer to be weeded by him or his family each month for approximately nine shillings per acre.

The factory is staffed by the teamaker and his assistant, two engine drivers and about forty labourers. Owing to the vagaries of the weather and withering conditions these people although working an eight hour day may often have to commence work at 3 a.m. There is normally a ten day plucking round on an estate and each day's work is allocated on the basis that four labourers pluck one acre of tea per day. There are on average 3,500 tea bushes per acre.

Three times during the day the leaf is collected from the pluckers, weighed and taken by lorry or wireshoot to the factory. As soon as the leaf arrives it is taken to the lofts and spread over tats. These are lengths of hessian stretched over wire in banks four inches above each other. In this factory the total area of the tats is 200,000 sq. ft. After approximately twenty hours in natural conditions the tea is said to be withered and has a smell like that of an apple loft. Next it goes down to the rolling machines which cut and twist the leaf and extract the juices. After each roll lasting half an hour (there are four in all) the leaf is passed over a mesh which removes a proportion known as a dhool; the remainder goes on to the next roller. After the fourth roll the leaf left is known as big bulk, comprising mostly stalk. Each dhool is placed on tables to ferment for approximately three hours after which it is fired in a drier from which it emerges black and dry such as you know. Finally, it is graded by mechanical and hand sieves, blowers and cutters, then packed in chests which may hold up to 120 lbs. of tea. The tea then goes to the Colombo or United Kingdom auction markets and it is only after this that the tea is blended to the various strengths which are available in the shops.

HEALTH

The health of the labourer is primarily in the care of the estate dispenser, who receives a salary of approximately £280 per annum

together with living quarters for him and his family. The shortage of dispensers for the estates becomes more acute each year for amongst other reasons it was recently decided by the Ceylon Health Department to convert the Apothecaries Course into one for Pharmacists.

The illnesses which cause most lost working days may be classified under the headings of respiratory diseases, worms (hook and round) and the bowel diseases.

The dispenser can and should refer anything other than simple ailments to the District Medical Officer at the local government hospital. On this estate the number of patients treated by the dispenser in 1955 was 2,758, while only 33 of these did he find necessary to refer to the D.M.O. Approximately £80 was spent on drugs during the same year, of which one third was covered by government grant.

A midwife who has received the approval of the government health authorities is in charge of the maternity work. Qualified midwives are all desirous of getting into government service (which is pensionable) and consequently a good midwife is difficult to find for estate work. Apart from living quarters for herself and family she receives an annual salary of approximately £133.

During 1955 the midwife delivered sixty-four babies of whom two were stillborn. There were no maternal deaths during labour reported. The midwife goes to the labourers' lines to make her ante-natal visits, although the women are reluctant to have abdominal examinations made or to produce a urine specimen for testing; in fact they often hide on her approach. Efforts are being made to get the mothers to attend ante-natal clinics held by the D.M.O. but progress is slow. Most of the women suffer from anaemia to some degree, but there is no way of knowing what happens to the iron tablets often given to the expectant mother during the last months of her pregnancy.

The pregnant woman labourer will go on working in the field until two weeks before her expected date of delivery. On commencing labour she is taken by relations to the estate maternity ward for her delivery and five days post-natal care. Maternity benefits are paid to the mother by the estate at approximately £1 16s. per child. While

the mother is in the ward 1s. 6d. per day is paid for the relatives to buy her food; this will consist mainly of vegetable curry, tea and bread. Milk is obtainable (though of poor quality) at approximately 3d. a pint but it is rarely that the mother will consent to drink it.

Within two weeks the mother will often be back in the field working a full day, returning to her home or the estate creche every four hours to feed her baby. The labourer will frequently go on breast feeding for two years or more in the hope of preventing a further pregnancy. Efforts are being made by some medical authorities to establish family planning, and although it is a new idea and a practice contrary to the Tamils established customs, some are appreciating the advantages to their health and the economy of fewer children at greater intervals. It is hoped that the slight downward trend of the birthrate which occurred after only two years instruction and propaganda on a number of estates will continue.

The creche is a small stone building, with a playground, and equipped with wooden cots where the working mother may leave her children in the care of an old ayah. Schooling is provided for children up to the age of fourteen years and the average daily attendance here is 133 children for which there are two schoolmasters. There is only a morning school session each day at which there is no way of enforcing attendance other than by the action of the government school inspector. The school can expect at least a bi-annual visit from him and the parents of a child with a poor attendance record are liable to a fine of 1s. 6d. by the local magistrate's court.

When comparing the wages and living conditions of the tea estate labourer with those of the present-day British workman one has to remember that England is many years ahead in her social work and one is assured that the conditions for the estate labourers have greatly improved in recent years.

(I have converted the Ceylon currency into that of the United Kingdom on the basis that the Ceylon rupee is valued at one shilling and sixpence.)

PARDON MY PENSION

Most people seem to think that it is a pretty dull thing to be a civil servant. However the following, which are extracts from letters sent to a pensions office, suggest that there is an occasional spark to relieve the gloom:—

"I cannot get sick-pay. I have six children, can you tell me why this is? This is my eighth child. What are you going to do about it?"

"Mrs. R. has no clothes. Has not had any for a year. The clergy have been visiting her."

"In reply to your letter, I have already cohabited with your officers, so far without result."

"I am glad to say that my husband that was reported missing is now dead."

"Sir, I am forwarding my marriage certificate and two children, one of which is a mistake, as you will see."

"Unless I get my husband's money, I shall be forced to lead an imortal life."

"I am writing these lines for Mrs. U., who cannot write herself. She expects to be confined next week and can do with it."

"Please find out if my husband is dead as the man I am now living with wont eat or do anything until he is certain."

"You have changed my boy into a little girl. Will this make any difference?"

"Please forward my money at once as I have fallen in errors with my landlord."

"I have no children as my husband is a bus-driver and works all day and night."

"I want my money as quick as you can send it. I have been in bed with the doctor for a week and he doesn't seem to be doing any good. If things will not improve I shall have to get another doctor."

"Re your dental enquiry, the teeth on the top are alright but the ones in my bottom are hurting terribly."

SAINT BARTHOLOMEW AND HIS ASSOCIATIONS

PART V: A MISCELLANY

by J. B. DAWSON

ARTISTIC REPRESENTATIONS OF SAINT BARTHOLOMEW

IN OUR Hospital we have several representations of St. Bartholomew; notably the very weathered picture over a fireplace in the Great Hall, and its very much finer brother which resides at the head of the stairs arising from the Mortuary Chapel; both of which, with a modicum of cleaning, and their restoration to prominent sites in the Great Hall, would greatly enhance the beauty of one of our greater heritages. In the latter picture of St. Bartholomew and in the right-hand section of the East window of St. Bartholomew the Less, the Saint is depicted with his knife of characteristic shape in his right hand. This knife is almost universally present in ancient pictorial representations of the Saint, whether in wood, as in the Choir Stalls of Blythburgh Church and the Lectern of St. Bartholomew the Great, or in stone as on the Portail de Sauveur of Amiens cathedral, in the Henry VII chapel of Westminster Abbey, and in old medieval "line drawings." Later other factors came to be representative of the Saint; of course his skin would be one's second choice, and this is chosen for the Statue in the Cathedral of Milan by D'Agrate and in the section of the 'Last Judgement,' Michelangelo's great achievement in the Sistine Chapel. In this latter the figure of Bartholomew is said to have been given the face of a poet called Aretino, who was reported to have severely criticised Michelangelo on the subject of depicting the body nude in a church, a novel feature at that time. Fable continues that the face on the skin of St. Bartholomew in the 'Last Judgement' is that of Michelangelo himself. This statue is alleged to have been the foundation for many frontispieces of works of anatomy and the like, and various figures and skins are represented with a small shred of association with this great Sistine Chapel work, giving rise to what are known as 'Muscle Men' or 'Ecorches' (Ecorcher being the French for 'To flay').

Bartholomew, of course, is also in evidence at all artistic portrayals of the 'Last Supper,' such as that by Bouts, Giotto, Fra Angelico and inevitably that of Leonardo da Vinci. Here Bartholomew is once again in a questioning attitude on the left-hand end of the table as you face the picture, showing a truly magnificent head, for which a very fine line drawing in red chalk was first cartooned by da Vinci.

Saint Bartholomew, as we have previously said, often carries the Gospel of Matthew, and as is the case with many saints is frequently enthroned. In some places he is depicted carrying a banner, but this may be symbolic of the death of Emperor Henry VII at Buonconvento in 1313 on August 24 (which apparently was a matter for rejoicing), or it may just have crept in as a Guild banner. He is also often seen with his foot upon the neck of a wretched devil, which is generally a rather half-hearted effort to depict the glorious descriptions of Bartholomew with his foot on the devil's neck in his Apocryphal Gospel.

SAINT STONE

The Saint Stone in which we have our particular interest is that of the garnet. This is a mineral, which takes an octahedral crystalline form, and comes into the classification of semi-precious stones. Garnet itself appears in several forms, from the very rare 'Demontoid' which is an exquisite green, to the purple 'Almandine,' and to the brown and rather dull-looking 'Hessonite' which is found as an 'inclusion' in diamonds, and in 1880 became known as the relatively famous 'Cape Rubies.' The relevant type for our purpose is the purple 'Almandine.' This, by its transparency and fire-like appearance, frightened wild beasts, and recalled at the same time one's faith and the martyrs. In particular it symbolises Bartholomew who was anathema to the devil and whose body was made bloody by his cruel torture. The stone represents the zeal for saving souls, charity which is all-



*Detail, showing St. Bartholomew, from The Last Judgement
by Michaelangelo*

consuming, the love of martyrdom, and a burning faith accompanied by works worthy of appearing as a chosen jewel of Christ's apostolic crown.

DEDICATION OF ST. BARTHOLOMEW TO MEDICAL ASSOCIATIONS

I have mentioned several reasons for associating Saint Bartholomew with medicine. However, a few more suggestions might be considered. The first of these is the fact of the Saint's flaying, and thereafter his pictorial portrayal with his skin draped

in folds about his bones and sinews. This, of course, has a distinctly 'barber-surgeon' flavour about it, and may have led to the acceptance of the Saint as a patron of Medicine. In passing it may be mentioned that he is the patron of 'The Butchers,' in our circumstances a somewhat unnecessary extension of thought.

The last of these suggestions is one which derives from the exorcising of the devil from King Polimius' daughter, a fate which resulted in Bartholomew becoming a specialist saint for nervous diseases.



A 'Muscle Man'

DEROGATORY TERMS

For those who appreciate a vicious tongue, the terms 'A Bartholomew Pig' and 'A Bartholomew Doll' are to be commended.

Pig. It was customary at the fair for a pig to be roasted whole and sold piping hot. From this stemmed the derisive term 'A Bartholomew Pig,' meaning a very fat person. In Henry IV (Part II) Falstaff calls himself 'A little tidy Bartholomew boar pig,' a fully justified title.

Doll. A tawdry overdressed woman, like a flashy bespangled doll, offered for sale at Bartholomew Fair.

HIS CREED VERSE

Finally, with the symbolism of this fine stone before us we come to his last great attribute. Here, unfortunately, there is once again a choice, but I have found only one example of the lesser choice, and so I offer it but refuse it support. As is well

known, when the Apostles all gathered together at Pentecost to draw up the Apostolic Creed, each was identified with one passage, and this appears to be related to the order in which they were chosen by Christ. Now Bartholomew, according to differing reports, was chosen sixth or seventh in this line, and as such could lay claim to two passages. The first and the lesser is:—'Ascendit ad coelos; sedet in dexteram dei.' (He ascendeth into heaven and sitteth on the right hand of God the Father Almighty). The second is not at all similar, but is symbolic of our patron's life, work and faith and of our heritage.

'Credo in Spiritum Sanctum.'

ACKNOWLEDGEMENTS

Owing to my absence from Bart's during the publication of my last two articles on Saint Bartholomew and his associates, I was unable to thank the many and varied folk to whom I owe a great deal. As is usual with articles written by Bart's men, the kindness and guidance of Mr. Thornton which he extends so personally is much in evidence. I am much indebted to both him and Mr. Harrison of our Photographic Department. I wish also to mention Mr. Victor Major, Miss G. M. Rackham, the Rev. Roy Porter of Oriel College, Dr. Wallbank of St. Bartholomew the Great, and Dr. Poynter of the Burroughes Wellcome Library, as notable amongst the many people who assisted me in my wanderings.

Finally, may I thank some three generations of editors of the *Journal* for introducing me to the wonder of *Journal* production and for their constant forbearance.



A CASE OF TRAUMATIC PARAPLEGIA

by VICTOR MAJOR

THOMAS R., aged 27, was admitted at 3 p.m. on 6.2.55, having been thrown from his motor cycle; he had not been wearing a crash helmet.

On examination, he was very restless and severely confused, so that whilst he complained continually of pain in his right shoulder and arm, he was unable to respond coherently to any of the questions which were put to him.

His temperature was 97°F, pulse rate 120 of fair volume, and blood pressure 110/80.

There was profuse bleeding from a four-inch-long laceration of the scalp, running transversely across the vertex; a depressed fracture was clearly visible in the depths of the wound.

No abnormality could be detected in either the pupils, fundi, or cranial nerves.

Movement of the neck and the right shoulder caused considerable pain, but in the right forearm and hand it was strong and full. The left arm was weak, with complete wrist-drop.

Reflexes were normal in the right arm, but weak in the left; sensation appeared to be normal in both.

The chest moved fairly well with respiration, but compression of the ribs provoked considerable pain.

No reflexes could be elicited in the abdomen—there existed a complete absence of painful sensation below the level of the umbilicus. Both legs were in a state of complete flaccid paralysis and anaesthesia, and no reflexes were elicited save for a slight flexion of the great toes.

X-ray examination revealed a compound depressed fracture of the skull, fracture of the right glenoid, multiple rib fractures, and a crush fracture of the eleventh thoracic vertebra, with backward dislocation.

INITIAL TREATMENT

After admission, the condition of the patient steadily deteriorated. His blood-pressure fell rapidly, although the head wound was no longer bleeding, and there was

no evidence of haemorrhage elsewhere. Two pints of blood were transfused quickly, but without response. The systolic blood pressure had fallen to 50 mm. when a nor-adrenaline ("Levophed") drip was set up; the rate of delivery was 6-12 μ gms/min. Dramatically, after some twenty minutes, the blood pressure had been restored to a normal level, and was maintained by careful regulation of the drip.

By 1 a.m. on 7.2.55, the marked improvement in the patient's condition allowed the essential debridement of his scalp wound and elevation of the depressed fracture in the skull to be carried out.

After sedation with five c.c.s Paraldehyde intramuscularly, the operation was performed under local anaesthesia.

7.2.55, 1 a.m. Operation:

Mr. R. M. T. Walker-Brash.

The edges of the wound were first thoroughly cleansed of debris in the form of skin, hair and blood-clot.

The pericranium had been avulsed, and a stellate, depressed fracture overlay the right motor cortex over an area of 2½ in. in diameter. The fracture lines were clearly, grossly contaminated with particles of hair and skin.

A burr-hole was sunk, a few millimetres from the edge of the fracture, and the fragments of bone very gently loosened and removed. Beneath the fracture, there appeared a linear tear, 1½ inches long, in the dura mater. There were no signs of any subdural blood-clot, and although the underlying motor-cortex was evidently damaged, remarkably little bleeding occurred.

The dura was sutured, haemostasis secured, the wound closed, liberally sprinkled with penicillin powder.

The nor-adrenalin drip was found still to be necessary for the maintenance of the patient's blood pressure, running at a slow rate, until 8 a.m. on the morning of 7.2.55.

PROGRESS AND FURTHER TREATMENT

Post-operatively, the patient received 250,000 units of soluble penicillin, eight-hourly, by intramuscular injection, and 1 gramme of Sulphatriad, six-hourly, by mouth.

A regime of two-hourly turning, day and night, from back to right side, to back, to left side, to back, and so on, was instituted.

Packs of pillows—some of them sorbo-rubber—were used in supporting the trunk and lower limbs, in order to avoid prolonged pressure upon any bony point—which might quickly have led to bed sores.

Twice daily intermittent catheterisation, with a 16F Tieman's catheter, was commenced on the evening of February 7th. He was, at this time, still in a state of severe confusion, and had a complete flaccid paralysis of the left upper limb in addition to the waist-level paraplegia.

Twenty-four hours later, however, movement was beginning to return to the left arm, but the complete absence of movement and sensation below the waist persisted.

A peri-anal and a cremasteric reflex were noted, and the next day, 9.2.55, an extensor plantar response on both sides.

The pain in his ribs, together with the paralysis of the abdominal muscles, and general mental confusion, combined to produce an almost complete inability to cough satisfactorily—this, despite the intense effort of the physiotherapist and others. During the following week, the patient having developed a mild chest infection, his trachea was aspirated, using a fine catheter.

Quite suddenly, ten days after admission, the patient suffered a collapse of the lower lobe of the right lung; his temperature rose to 102°F. Aspiration was renewed, and the patient responded to treatment by this means and to Distaquaine penicillin 600,000 Units and Sulphatriad G2 per diem. Phenobarbitone gr. $\frac{1}{2}$ b.i.d. and pethidine 100 mgms. p.r.n. were also being administered at this time.

For the first ten days, it was very difficult to feed the patient, and to persuade him to drink sufficiently, but these troubles dissolved with his gradual return of bodily strength and mental composure.

On 26.2.55, nineteen days after admission, the urine became hazy for the first time, and a mild pyrexia developed. In order to deal with the signs of urinary infection, intermittent catheterisation was stopped, and

replaced by a Foley self-retaining catheter. At that time, there were no signs of a return of bladder-function either natural or automatic, although some degree of vague bladder sensation was reported by the patient.

The condition of his skin, due almost entirely to the very high standard of nursing care, remained excellent.

The haemoglobin level, which was 82 per cent on the day following admission had been restored to 94 per cent. The neurological signs remained unchanged.

Towards the end of February, his mental state became virtually normal. No mention had been made to him of the marital implications of his paraplegia—which was a particularly difficult problem, since, at the time of his accident, he was engaged to be married.

On 4.3.55, the patient was transferred to Stoke Mandeville hospital, Aylesbury, in Buckinghamshire, where he remained for seven months, until his discharge in October, 1955. (Under Dr. L. Guttmann.)

AT STOKE MANDEVILLE

During his stay at Stoke Mandeville hospital he was taught not only to walk—by means of a tripod-gate and crutches, his legs held rigid in calipers—but also had to adapt himself to his previous trade, that of an electrical mechanic.

His bladder now functions automatically, four to six times a day, and he has been trained in the use of the special urinal designed by Dr. Guttmann.

At no time, in either hospital, did any bed-sores develop.

Like all spinal injury patients at Stoke Mandeville, he will be readmitted for examination at half-yearly, and later, yearly intervals in case any complications in his condition may arise.

A short time before his discharge in October, 1955, the patient married again (he was a widower). His training now enables him to support his wife and three-year-old son.

DISCUSSION

Nearly five thousand years ago, an Egyptian surgeon stated that paraplegia was "... an ailment, not to be treated." (The Edwin Smith papyrus). As recently as 1953, E. A. Nicoll wrote: "Patients with paraplegia should either be treated superlatively

well, or not at all." (Both quotations are from Watson-Jones.)

Of the hundreds of American-soldier-paraplegics from the First World War, only one man was alive twenty years later. Despite the efforts of Gordon Holmes and others in England, the British victims of

Rodgers in the U.S.A. More than half of four thousand American soldiers who sustained paraplegia in the late war are alive today, and 80 per cent of these are able to earn their own livings (Watson-Jones).

This remarkable achievement has been due in the main to scrupulous attention to nursing and to the paralysed bladder (including the use of the antibiotics) and also to the introduction of carefully planned physiotherapy and rehabilitation in a general sense.

This case illustrates several of the features in the diagnosis and modern treatment of patients suffering from paraplegia following fracture-dislocation of the spine. There is substantial agreement upon the general lines of management, but a few of the variations relevant to this case will be mentioned below.

DIAGNOSIS

Concerning the fracture and dislocation at T11, clinical examination revealed complete anaesthesia and loss of motor power and reflexes (except for a weak plantar response, with anal reflex) below the area of distribution of the 10th thoracic nerves, i.e. below the umbilicus.

It has been noted that these signs were complete and absolute immediately after the injury and that they showed no significant change at any subsequent time.

Reference to the diagram shows that such neurological signs as these, elicited as they were, very soon after injury, might indicate either cord transection at T7—not necessarily complete—or else cord transection together with involvement of the spinal roots T₁₀—L₁ at T10; or even a combination of these two alternatives. Upon the problem of such a diagnosis, Holdsworth writes, "Where, at the end of 12 hours, when the effects of spinal concussion have passed off, there is no evidence of function below the lesion, complete cord transection must be present; useful recovery will not occur, although anal, cremasteric and weak plantar responses may still be elicited." Since, in this case, examination upon the morning following injury indeed revealed no signs of either motor or sensory function below the level of the lesion, the cord transection was considered to be complete, and therefore irrevocable. Holdsworth states also, that it is usually impossible to judge, with any useful degree of accuracy, the extent of injury to the cord until at least

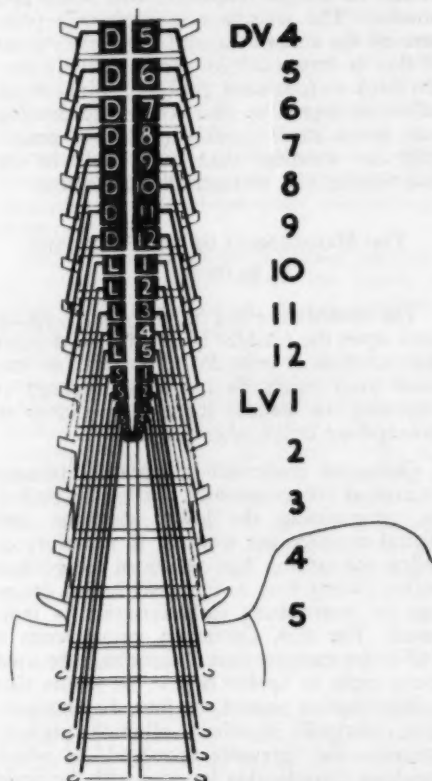


Diagram showing relationships of the spinal cord and nerve roots.

spinal-cord transection fared no better. Large, suppurating bed-sores, eroding both soft tissues and bone, led to serious protein-loss; severe flexor-spasms in the limbs, and most fatal of all, increasing urinary tract infection, combined in reducing the paraplegic to a state of rapidly mounting cachexia, toxæmia, and mercifully quickly, to death.

During the Second Great War, however, revolutionary progress began to be made in this field of treatment, led by Guttman in this country, and by Munroe, Bors and

twelve hours after injury—since the permanent signs are, until then, often masked by those resulting from spinal concussion: but he (Holdsworth) has never seen complete motor and sensory loss resulting from spinal concussion alone.

INITIAL TREATMENT

The classical treatment of spinal fracture-dislocation, by complete immobilisation in plaster, owing to the invariable production of serious and troublesome bed-sores, has largely been abandoned. Today, all writers emphasise the vital importance of very careful and gentling handling of new patients, keeping the spinal column all the time in its normal alignment—or even in slight hyperextension (Watson-Jones).

Upon what is to be done next, there is some divergence of opinion. Whereas Holdsworth advocates—in all but the simplest and most clearly stable of injuries—very early operation for the internal fixation of the fractured spine, using a pair of plates bolted on either side of the spinous processes across the site of injury, Guttman states that *only* the most extremely unstable of fracture dislocations—when associated with an incomplete cord lesion—are suitable for operation. Thus, contrary to Holdsworth's dictum "Nursing necessary to prevent bedsores may cause further damage to an anatomically intact cord, or transform a partial lesion to a complete transection", Guttman, through his specially trained nursing staff, treats nearly all his patients by very careful handling, using sorbo-packs and pillows, maintaining natural curvature in the spine, and in this way belying Holdsworth's fears. Guttman's disapproval of the operation for internal fixation has perhaps been intensified by his experience of having been compelled, on a number of occasions, to remove the fixating plates from the spines of patients; plates, which far from serving to stabilise the fractured spinal column, had, in fact, broken loose and were projecting through the skin. These cases may have been due to faulty technique at operation; Holdsworth reports no such occurrences in his series. In fact, it seems likely that, in the absence of specially trained staff, the Holdsworth operation may lessen the danger of further damage to the cord, in those cases which exhibit an unstable fracture-dislocation.

Whether the spine be fixed or not, a strict regime of two-hourly turning, from the back to alternate sides, must be instituted from the very outset, for pressure sores may develop—even in the absence of plaster—within twelve hours. For the same reason, the skin covering the bony 'pressure points' should be treated frequently with spirit and powder. The resistance to prolonged pressure of the anaesthetic and motionless areas of skin is very much lowered especially during the three- to four-week period of spinal shock following injury, so that sores may develop very much more quickly (and with practically no warning) than they could in the bed-ridden, but non-paraplegic, patient.

THE MANAGEMENT OF THE PARALYSED BLADDER

The immediate effect of injury to the spinal cord upon the bladder is, usually, to depress the excretion of urine for a few days, so that there need rarely be made any attempt at emptying the bladder for at least sixteen to twenty-four hours after the injury.

Guttman recommends repeated attempts to express urine manually, during this period, by compressing the lower abdomen and digital massage per rectum. If voluntary or reflex micturition has not been established within twenty-four to thirty-six hours, drainage by intermittent catheterisation is indicated. For this, Guttman recommends a 16F Foley catheter (not Tieman's) to be used every eight to twelve hours; he insists that catheterisation should, at first, be intermittent, principally in order to allow the urethral mucosa—the 'pressure threshold' of which has been considerably lowered with the onset of spinal shock—to become gradually accustomed to the presence of a foreign body. Further, and particularly in cases of incomplete cord-lesions, the regular filling and emptying of the bladder provides an excellent stimulus for the return of normal bladder function, or else for the establishment of an automatic bladder. Small daily doses of sulphonamides—e.g. sulphatriad—or a suitable antibiotic should be administered as an 'umbrella' to the risk of urinary infection from the catheterisation.

After three weeks intermittent catheterisation, or earlier, should infection become established, Guttman recommends its replace-

ment by an indwelling Foley catheter—to be changed at intervals of between two and three days, accompanied by washouts of 20% flavazole or chloromycetin. Once the bladder begins to function automatically—usually after six weeks or so, intermittent catheterisation should be re-instituted (he writes) and continued until the detrusor is powerful enough to empty the bladder completely, or to leave a minimum quantity of residual urine (the amount and content of which should be measured regularly). In Guttman's experience, the employment of the scrupulous 'no touch' technique—by two persons and holding the catheter only with Spencer-Wells' clips—upon which he insists, precludes serious urinary-tract infection indefinitely.

Holdsworth and others, however, employ a self-retaining catheter from the outset, a practice found satisfactory in the American Forces during the late war.

Supra-public cystostomy—formerly performed routinely for paraplegics—is seldom advisable these days, unless concurrent perineal injury should necessitate it. The operation has little to commend it. To the patient himself, his unnatural condition is constantly repugnant; secondly, there is a greatly increased risk of serious infection; and lastly, it is said that it effectively prevents the early establishment of an automatic bladder.

GENERAL CARE AND MANAGEMENT

Besides scrupulous attention to nursing and bladder care, every effort must be made in restoring the general health and resistance of the paraplegic. Particularly in cases where severe sepsis has become established, there is frequently a heavy loss in proteins, which may lead to a state of almost Belsen-like cachexia. These patients should be given a very high protein diet of meat, fish, cheese, etc., supplemented, where necessary, by such synthetic sources as Casilan or Casidrol, together with repeated whole-blood transfusions of one to two pints per week.

The paralysed bowel should be encouraged to act naturally by the judicious use of aperients, enemata, or even by manual evacuation. These measures are usually necessary to obtain a satisfactory and regular evacuation, although in some patients,

abdominal straining combined with a trained habit reflex may prove sufficient.

There is always a considerable risk of pulmonary infection in the paraplegic, particularly where there is also injury (in the form, for instance, of crushed ribs) to the chest wall. For this reason every effort must be made to make the patient cough—so as to prevent his inhaling respiratory secretions, supplementing this when necessary by the aspiration of the mucus through a narrow catheter attached to a pump. Any infection of the respiratory tract—most frequently a broncho-pneumonia—must be dealt with immediately and effectively if serious complications are to be avoided.

Physiotherapy has a very important rôle at every stage of treatment. At the beginning, the performance of passive movements in the paralysed limbs effectively prevents the development of flexor spasms, which might otherwise be the source of continual distress to the patient. Should these spasms, in fact, become established and prove resistant to every form of physiotherapy, resort may be made to peripheral nerve block—by injecting alcohol—or by section of the nerve. If this procedure proves unsuccessful, intra-thecal alcohol-block will usually remove the spasm. Such formidable procedures as root sections, cordotomies, etc., are rarely required. Further physiotherapy may, with great advantage, be directed towards the development of the upper-limb muscles to such an extent as to enable the patient to support his whole body weight through his arms, on crutches. It has been found possible at Stoke Mandeville to teach any otherwise healthy and willing patient to walk, who has a cord lesion below C8, and who retains sufficient power in his arms to enable him to use crutches—with or without the aid of special braces. The latissimus dorsi muscles are particularly important in this connection, and formal physiotherapy is supplemented by selected sports—particularly archery and swimming.

RE-HABILITATION AND AFTER-CARE

One may perhaps, in some measure, appreciate the feelings of the irrevocable paraplegic when he is first told of the full implications of his condition and of what his future is likely to be from this point of view. His reaction to this news will, naturally, vary very widely with his temperament and per-

sonality, with his previous ambitions, and most of all with his powers and willingness to re-adapt himself to his state.

With these considerations in mind, nearly all recent writers on this subject have stressed the necessity for cheerful, lively surroundings, with the reasonable maximum of physical and mental activity from the earliest possible stage in the treatment of these patients.

This is exactly the atmosphere to be sensed at the Spinal Injuries Centre at Stoke Mandeville, where the many crippled patients thrive together, encouraged individually by their mutual example. There is keen competition amongst them in the specially adapted sports—wheel chair basketball, table tennis, archery and so on, and every summer a National (and even International) Olympiad is held at the hospital.

From the beginning of their treatment in the special Spinal Injuries Centre, patients are kept fully and interestingly occupied, either in furthering a previous trade or career, or in embarking on a new one. Several University degrees have been conferred upon patients from Stoke Mandeville.

When, after between seven and twenty-four months, a patient is fit enough to leave the hospital, he will—in most cases—be able to resume normal employment almost at once, and to live an optimistic and reasonably

independent life. He will return to the hospital once every six months, and later every year for re-examination and further treatment, where necessary.

ENVOY

Tom R— is now living at a hostel in London until suitable accommodation can be provided for him, his wife, and young son. One has only to glance back at the desolate position in the treatment of traumatic paraplegia existing up to the outbreak of World War II and compare it with that of today, to realise what profound tribute is due to those who, through their careful study, and vigorous practice have given to the victims of this terrible form of injury, this "ailment, not to be treated," the chance of life and achievement.

ACKNOWLEDGMENTS

My thanks are due to Mr. R. S. Corbett for permission to report on this case; and to Mr. R. M. T. Walker-Brash, who has suggested, encouraged and corrected the article; and to Dr. J. J. Walsh, M.B., B.S., of Stoke Mandeville Spinal Injuries Centre, for his patient replies to my queries.

I also thank Mr. F. W. Holdsworth, F.R.C.S., and the editors of the Journal of Bone and Joint Surgery and the Annals of the Royal College of Surgeons for permission to publish the diagram.

SIXTH FLOOR QUOTES

Q.—"Why do you have a blob of red paint on your light switch?"

A.—"So that when I turn out the light I know I'm in 618 and not 518."

* * *

"I always like to stand at Twickenham — it's so much easier to change partners."

ROYAL COLLEGE OF SURGEONS

NOVEMBER 1956

The following obtained the Diploma of Fellow:—

R. D. Nicholson

J. I. Burn

R. V. Fiddian

Primary F.R.C.S. — November 1956

N. L. Teck Kam

STUDENTS UNION

COUNCIL MEETING

There was a meeting of the Students' Union Council on Wednesday, 5th December.

The following business arising out of the minutes of the previous meeting was discussed:—

1. *Abernethian Room and cloakroom.* No further information was available regarding the Hospital Committee's plans for the extension of the Out Patients' Department and restyling of the Abernethian Room, or the modernisation of the cloakroom.

Complete refurnishing of the Abernethian Room had been suggested, but for financial reasons it was impossible only to replace individual pieces.

2. *College Advisers.* A decision taken at the A.G.M., to change College Advisers on moving from Charterhouse to the Hospital, was reversed. It was decided that a letter should be sent to the Dean suggesting that the system of College Advisers should be made more effective.

3. *Mid-week dances in College Hall.* The question was referred to the College Hall Committee.

The only item on the agenda was the provision of a piano for dances in the gym. It was decided that the Union could not afford to donate a piano, and that it would be uneconomical to buy one and hire it out to clubs.

Other business:—

1. *Compulsory residence in College Hall.* A letter from the Dean was read, stating that The Medical College could not afford to subsidise the compulsory residence of first-time Clerks and Dressers; that he felt that preference should be given to first-year students for social reasons; and that therefore preference would be given to first-year students in allotting accommodation. The

implication was that the subsidy would be discontinued. The meeting felt that there were so few night calls to residents that the month's residence was not of great value. It was decided to send a letter to the Dean asking whether the compulsory residence might be abolished, and pointing out that this would solve the financial problem, and also permit more final-year students to live in.

2. *Rugby fives court.* In view of the decision of the Board of Governors to use the Hospital Rugby fives court for storage purposes, it was decided to write to the Board, saying that many students and residents wished to play the game, and requesting alternative facilities.

3. *Honours Colours.* The following Honours Colours were awarded:

Athletic club: D. O'Sullivan.
C. Prys Roberts.
A. S. Tabor.

Sailing Club: G. Misierwicz.

4. *Ward show lunches.* The Council approved the College offer to provide lunch on Christmas and Boxing Day for students taking part in Ward Shows. The cost would be 2s. 6d., representing a subsidy of an equal amount.

5. Permission was given for the Athletic Club to use the College Hall music room for their A.G.M. on Friday, 7th December

6. Permission was given to the Boat Club to hold their Annual Ball in the Gymnasium from 9 p.m. to 2 a.m. on Friday, 11th January.

7. The design for the Rifle Club tie was approved unanimously.

8. The Council approved the ladies' selection of the *Manchester Guardian*, *Daily Telegraph* and *Daily Express* for their sitting room.

ABERNETHIAN SOCIETY

MEETINGS

The Abernethian Society has had three interesting meetings in the last month. At the first of these a return was made to the old practice of hearing papers by members. Mr. M. G. Besser discussed the mechanism of ketosis in diabetes mellitus. Mr. P. J. Fenn gave an account of the sinister Dr. Lopez, poisoner to Queen Elizabeth I, and drew an intriguing picture of the medico-political life of the day. Finally, Mr. V. T. D. Major described a case of paraplegia recently admitted to Bart's, and discussed recent improvements in therapy and nursing care. The attendance at the meeting was rather poor, and it is to be hoped that the present-day trend of expert-worship will not make the society unappreciative of the efforts of its members. We consider that the papers were of a very high standard, and for the benefit of those who were unable to attend the meeting all three of them will appear in the *Journal*. It is to be hoped that one or more such meetings will be included in next season's programme.

On November 22nd Dr. Grantly Dick Read spoke on Natural Childbirth and its influence on obstetrical practice in the last thirty years. He did not discuss the principles or practice of Natural Childbirth, but he emphasised throughout that the birth of a child is in 97% of cases a perfectly normal phenomenon. He described fully his own career, and how, since the age of 19, he had been obsessed by the idea that pain at childbirth was unnecessary. He had studied native childbirth in Africa, and had practiced in that country after the war when there was considerable opposition to his ideas in this country. He ended on a more optimistic note, saying that his methods were receiving more interest in this country and had been approved by the Holy See.

On December 4th we heard three most interesting and amusing talks by members of the Staff on recent research in the Hospital. Dr. Dormer described the general organisation of research projects, illustrating his subject by an account of his research

into oxalate metabolism; his talk was eventually accompanied by a song from the Professor of Mathematics at Harvard (recorded). Dr. Lawther then talked on Atmospheric Pollution, and showed electron microscope photographs of smog particles. Mr. Hadfield completed the symposium by discussing recent work on breast cancer and its metastases. He spoke of hormone dependence and the results of hormone treatment; and he contrasted this approach with that of the old 'carniverous' surgery, as a result of which it became fashionable to be single-breasted.

ELECTIONS

At a meeting of the Society on November 1st, 1955, the following officers and committee were elected for the period January to June, 1957:

President : L. J. Chalmers

Secretary : C. Stevenson

Treasurer : P. L. Norris

Committee:

C. F. Allenby

J. Hedley-Whyte

J. D. Parkes

M. T. Barton (*Preclinical representative*)

PROGRAMME

In last term's programme the Committee returned to the traditional practice of inviting students and members of the Hospital Staff to contribute to many of the meetings, by reading case histories or papers on original research. This was very well received and it is therefore intended to continue this policy. Lectures will also be given by visiting speakers and it is hoped to have a film show. The programme for the first six months of 1957 will be published in January.

Again the Committee would welcome the greater participation of members, not only by attending but also by taking part in the discussions at meetings. Anyone wishing to read a paper later in the year is invited to contact the secretary.

NATURAL HISTORY SOCIETY

THE CITY BOMBED SITES

THE AREA concerned is that which stretches from Moorgate to Aldersgate. In 1941 the tall buildings of small-time commerce squatted on a pattern of narrow streets. The carpeting of the close-set roofs by incendiary bombs yielded, during the Blitz, an unhindered conflagration. Most of the house sites were scooped more or less free of the loose debris left by the demolition teams. Open to the sky, the asphalted basements became rain-soaked. The mosses and the fungi moved in, flourishing until their growth produced a layer of shallow but fertile humus. There opened now a period when whatever rooted could settle in, unhindered by competition. An often bizarre flora resulted, originating in a host of ways. It was the lure of piecing together modes of invasion that brought naturalists to this strange oasis in the midst of London. The common weeds, the enigma of every wasteland, were found in abundance, e.g. dock and thistle. Windblown plants, trees and shrubs were plentiful. But how did Chestnut, Oak and Willow come? Every common vegetable and every fruit tree occurred; the probable vector here was the lunchtime city worker. The Opium Poppy and the Primrose were seen, amongst a usually transient sprinkling of garden flowers.

The Fauna of the area was quite large. In addition to the usual city birds, there came into existence a large colony of Black Redstarts. This bird had nested in 1940 for the first recorded time, near Westminster; it rapidly took over the cleared area provided by the opportune bombing. There also grew up a colony of almost wild cats. The numerous City Churches probably yielded, from their long stagnant graveyards, the beetles, snails and woodlice found eventually throughout the area. From about 1950, the period of heterogeneous flora was found to be drawing to a close. Even towards the close of the war, there had been observed on the rim of some of those basements lining the roadways crossing the area, a heavy growth of typical meadow grasses. The seeds had probably arrived in the dung occurring on city streets during the war-days of horse-drawn cartage. The sequel has been the progressive smothering under a

grass-mat of all but the well-placed or perennial flora.

The data outlined in this account were brought to the notice of the Natural History Society at its Winter meeting on 16th November. The ornithologist and naturalist-photographer W. G. Teagle, F.Z.S., showed a film of the site, while the flora were discussed by A. Jones, for several years in charge of an Ecological Survey of the Sites.

PHYSIOLOGICAL SOCIETY

WE have heard a great deal about the dangers of radio-activity in the atmosphere, but there is also a beneficial side to atomic radiation. This Professor Rotblat showed in his lecture to the Physiology Society on November 12, when he gave a very lucid outline of the applications of nucleophysics to medical science.

Radio-active isotopes may be used to study the metabolism of a particular substance without affecting the health of the animal, because very small amounts of the tracer are needed. Blood circulation can also be investigated with tracers; and recently, by giving radio-active sodium, it was possible to tell to what extent Siamese twins shared lives—thus assisting the surgeons in the operation for separation.

Secondly, the isotopes are used to destroy living tissue. Since the thyroid takes up far more iodine than any other structure, by administration of radio-active iodine the thyroid tissue can be selectively destroyed. This is useful in treating hyperthyroidism and in cases of cancer of the thyroid when the iodine will also destroy secondary deposits. Removal of the pituitary gland has been found effective in controlling cancer of the breast, but its surgical removal is extremely difficult. The isotope ^{60}Co is used in a cyclotron to produce a very narrow ray which can be arranged to pass through the pituitary body, and by rotation of the apparatus the surrounding tissue receives much less radiation than the pituitary itself.

After giving further examples and some ingenious demonstrations, Professor Rotblat concluded by saying that, while radio-active isotopes are quite widely used, very little is known of the mechanism by which radiation destroys tissue.

SPORTS NEWS

RUGGER

1st XV v. Treorchy. At Treorchy, November 24th.
Lost 3-11.

This was Bart's first match in the Rhondda Valley. As Mackenzie remarked in his speech afterwards, this game was rather like carrying coals to Newcastle, for no fewer than eleven of our side had Welsh connections. Many of the team had travelled down to their homes on the Friday and joined the main party at Treorchy.

In the first half the team did not seem to have shaken off the effects of their journey, for the forwards were lifeless and the handling of the backs was poor, even though Lammiman playing his first match of the season in the 1st XV, had a couple of strong runs on the left wing. By half-time Treorchy had scored a goal and a penalty goal, and soon after the interval they added a dropped goal. Then at last Bart's began to find some real life and to justify their trip. Continuing to throw the ball around they pressed hard, and once Halls put Lammiman right through after drawing the full back, but a covering Treorchy back knocked him into touch only a yard from the line. Phillips on the opposite wing was often dangerous, and on one occasion two men went for the ball with a resultant knock-on only a yard from our opponents' line when there were two more men outside them. In the end we got a consolation score when M. J. A. Davies dropped a neat goal.

No report can be complete without a word in praise of the magnificent hospitality shown us by the Treorchy officials and players, and we were glad to hear how much they had appreciated the open game which we continued to play even when eleven points down. We were also very glad to meet Dr. Melbourne Thomas, who had been capped for Wales when captaining Bart's in 1920.

Team: B. W. D. Badley; R. M. Phillips; G. J. Halls; M. J. A. Davies; D. A. Lammiman; R. Bonner Morgan; A. P. Ross; J. C. Dobson; C. J. Carr; D. A. Richards; L. R. Thomas; W. P. Boladz; A. H. Thomas; R. Jones; J. C. Mackenzie.

1st XV v. Esher. Home. Won 8-3.

The team for this match showed several changes, the two chief ones being positional—Mackenzie moved to the second row of the pack and Phillips was at fly-half. Both players amply justified the changes, the former setting a fine example in the essential art of covering, and the latter, apart from initiating both our tries, gave the backs a fast start to all their movements.

Our scores came in the first 20 minutes, both as a result of good breaks by Phillips. He scored

the first himself and gave Halls the opening to score the second. The first was converted by M. J. A. Davies, whilst Esher's score, a fine penalty, came soon after our second score. After this there was no further score, although Esher pressed continuously in the second half, and were only kept out by some fine kicking by Badley and some good covering by the forwards, notably by Mackenzie and D. Richards.

This was an encouraging result after three consecutive defeats, and it seems as if the side is becoming more of a team rather than a mere collection of individuals. There is, however, still room for improvement in the basic arts of giving and taking a pass and in first-time tackling.

Team: B. W. D. Badley; D. A. Lammiman; G. J. Halls; M. J. A. Davies; A. B. M. McMaster; R. M. Phillips; B. Richards; W. P. Boladz; P. Knipe; D. A. Richards; J. C. Mackenzie; D. W. Roche; R. P. Davies; L. R. Thomas; A. H. Thomas.

1st XV v. Saracens. Southgate. Lost 8-14.

From the start, despite a wet ball, we threw it around, and within five minutes were rewarded by a try, which was made by Phillips who from his new position at fly half had a 40 yard twisting run and found Halls beside him to take the final pass 5 yards from the line. Saracens responded with a try by one of their centres, who won the race for a touchdown. Neither of these tries was converted. Bart's then came back with a try by Phillips, who when challenged on the '25' found Howard Thomas inside him, the latter playing his usual good game, and the ball then went back to Phillips who ran over 5 yards wide of the posts and so Halls converted to make the half time score 8-3 to us.

Saracens scored half way through the second half, as a result of a three-quarter movement. This was not converted. They were getting a good deal of the ball, and it was not long before their fly half dropped an excellent goal. This was rather dispiriting for us, and although play switched from one end of the field to the other, it was Saracens who scored through a concerted forward rush, which they converted.

Bart's in this last period were completely outplayed at forward, fitness was the main reason, but also we did not resort to enough foot play. Phillips was extremely good at fly half, and with a little more of the ball, we might have kept up our first half standard of play and maintained our lead.

Team: B. W. D. Badley; A. B. McMaster; J. C. D. Plant; G. J. Halls; D. A. Lammiman;

R. M. Phillips; B. Richards; W. P. Boladz; P. Knipe; D. A. Richards; D. W. Roche; J. C. Mackenzie (Capt.); R. P. Davies; L. R. Thomas; H. Thomas.

1st XV v. Old Paulines. Drawn 3-3.

This match was played with a strong wind blowing, a greasy ball and slippery conditions underfoot. Considering these factors, both sides kept the game going very well, although naturally it was chiefly a forward battle. Bart's were perhaps a trifle lucky to be leading 3-0 at half-time—after a scissors with Phillips M. J. A. Davies dropped a magnificent goal into the teeth of the wind. Early in the second half the Paulines equalised with a similar score, and although Bart's had the better of the remainder of the play the Pauline covering prevented any further score.

The pack, although well beaten in the tight, played well in the loose, where it was good to see John Tallack, playing his first 1st XV match of the season, leading them well. Of the backs, Phillips, despite a good service from Ross, was not allowed much scope. Halls came near to scoring on at least two occasions and Badley was always willing to join the attack from the full-back position.

Team: B. W. D. Badley; D. A. Lammiman; G. J. Halls; M. J. A. Davies; A. B. McMaster; R. M. Phillips; A. P. Ross; J. C. Dobson; C. J. Carr; W. P. Boladz; D. W. Roche; J. S. T. Tallack; R. P. Davies; M. W. Sleight; J. C. Mackenzie.

SOCCER

1st XI v. St. Thomas' Hospital. Home. Drawn 2-2.

This was our first meeting with St. Thomas' Hospital for two years. The game started in sunshine with both teams playing attractive football. Bart's had to introduce four reserves into their team for a variety of reasons and it must be said that the reserves played well. The reserves introduced were D. Kingsley in goal, J. Bench a "borrow" from the Rugby club, P. Kingsley at inside left and M. Plumtree at outside left.

The game itself started with Bart's pressing and several long shots by Kingsley went perilously close to scoring. However the opening score was to be denied Bart's as St. Thomas' scored in one of their infrequent attacks on the Bart's goal. This made Bart's redouble their efforts and near half-time Gould was put through by Watkinson and scored with a well-directed close shot past the goalkeeper.

The second half opened amidst a cloudburst and soon the Bart's goal was again endangered. A faulty and expensive miskick by Kennedy allowed the opposing Right wing to score with a fine cross drive which gave our goalkeeper no chance whatsoever. Following this St. Thomas' pressed even more and a miraculous clearance off the line by J. Bench prevented a further score. With time running out and Bart's pressing for an

equaliser, a well flighted centre from our right winger Andan went into the net via the post and the opposing goalkeeper—a rather lucky equaliser. No more goals were scored and the match ended in semi darkness with a 2-2 draw and both teams glad to get into a hot bath.

A mention must be made of the creditable performance of the four reserves introduced into the Bart's team at such short notice and also of the "sterling stopper" at centre half, namely D. Prosser.

Team: D. Kingsley; J. Bench, R. Kennedy; P. Watkinson; D. Prosser; R. G. L. Smith; A. Andan; R. Pilkington; A. Gould; P. Kingsley; M. Plumtree.

HOSPITAL LEAGUE

1st XI v. Westminster Hospital. Won 5-2.

Scorers: Whitworth 3 (1 penalty). Gould 2.

Smarting from our 0-5 defeat in the Hospital Cup at the hands of St. Mary's Hospital the previous Wednesday, we started this game with the fight and enthusiasm which had been lacking in the Cup game. Under almost continual pressure, the Westminster defence kept their goal intact for practically two-thirds of the first half, defending desperately in order to do so. Suddenly, from a long upfield clearance by the Westminster full-back, defence was switched to attack, and following weak and inept tackling by the Bart's defenders the Westminster left winger was able to force the ball home. First blood to the visitors!

This spurred the Bart's forwards and they proceeded to bombard the Westminster goal and eventually succeeded in levelling the scores. A long shot was only partially saved by the opposition goalkeeper and Gould was on hand to score with a well placed shot just inside the near post.

Following the kick off Bart's again swept down on the Westminster goal, and from a throw-in, the ball moved from Gould to Pilkington to Johnson who placed the ball into an open space 30 yards out from goal for the 'Skip' (A. Whitworth) to score with a beautiful drive. One of the best goals seen on this ground for many years.

On changing ends Bart's again continued to press and it was not long before our lead was increased. Gould crossed a low centre from the left and Whitworth was again on the spot to drive the ball well wide of the goalkeeper into the net. Bart's continued to press home their advantage and soon Gould was able to slip the ball past the opposing goalkeeper to notch our fourth goal. Our final goal was scored by Whitworth from the penalty spot following a foul on Gould when a score was probable.

Our goalkeeper, not seriously troubled during the game by the Westminster forwards, eventually allowed a ground shot to pass through his hands into the net for the second 'consolation' Westminster goal.

During the closing minutes the game became very scrappy owing to injuries caused to both sides and the fact that both teams were reduced to 10 men.

A good clean game was enjoyed by all.

Team: J. Mercer; R. Kennedy; D. Prosser; P. Watkinson; C. Juniper; M. Noble; A. Andan; A. Whitworth; T. Johnson; R. Pilkington; A. M. Gould.

1st XI v. St. Thomas' Hospital. Won 2-1.

This was our fourth game in the newly formed Hospital League and St. Thomas' started the game as if they were out to win it. This however was not to be. After an early period of uncertainty the Bart's defenders gradually gained the mastery of the opposing forwards. This allowed the forwards to play up the field as a line and it was not long before a score resulted. A quick, long throw-in by Smith enabled Johnson to first time the ball into the middle where Whitworth, standing outside the penalty area, without a moment's hesitation, hit a high curling shot into the top left hand corner of the goal. This seemed to infuse new life into our opponents' attack which however was nobly quelled by our goalkeeper, Kingsley, and a much improved defence.

Half time came with Bart's still leading by the odd goal. The second half opened in much the same way as the first and again it was left to Whitworth to notch our second goal. Receiving the ball from our left winger, Whitworth proceeded to dribble round an opponent before releasing a drive which had the goalkeeper helplessly beaten. It must be stated that since the introduction of Whitworth into the forward line the whole line has improved as a whole and that extra finishing power, lacking before, is now present.

Following this reversal, St. Thomas' renewed their efforts to score and a long shot from outside the penalty box gave them a consolation goal. The game ended in semi-darkness with the Bart's defenders fighting a noble rearguard action to keep their line intact which they did until the final whistle.

A fine ending to a game enjoyed by all.

Team: D. Kingsley; R. Kennedy; D. Prosser; A. Watkinson; C. Juniper; R. Smith; A. Andan; A. Whitworth; T. Johnson; R. Pilkington; A. Gould.

HOCKEY

1st XI v. Kingston Grammar School. Drawn. 3-3.

The annual match against K.G.S. is usually rather revealing to Bart's hockey and this year, with the scalps of Thomas's and Guy's to their credit, we wondered what might happen.

K.G.S. began attacking immediately and, using their inside forwards cleverly, were soon one up when a sluggish defence failed to clear. There followed some good hockey and play swung from end to end with our forwards taking the ball nicely to their circle, but too often losing it. It was now that K.G.S. scored their second goal, when, with Doherty drawn out of his goal and the left half preparing to take a swing at the ball, it was ignominiously removed from beneath his stick over the goal line. Soon, however, Barts were awarded a penalty corner from which Drinkwater scored. Almost immediately K.G.S. scored their third goal with a beautiful shot from the edge of the circle, following a long corner. Just before half time we were again awarded a penalty corner and from this Drinkwater scored our second goal.

The second half seemed to go on for far too long from the Bart's point of view! We scored our third goal when Drinkwater sent a clever through pass to Anderson who drew the goalkeeper and flicked it neatly past him into the side of the net. From then on the defence came into their own and the two backs, Nichols and Goodwin, were especially effective in breaking up some dangerous forward movements. Neither side, however, could score again.

This was a creditable performance by the whole side. The forwards, on the whole combined well, but will benefit by playing together more and perfecting the all-important through pass. The defence started slowly but, by the second half were an effective team, playing well together. A notable feature of this game was the welcome return of C. S. Goodwin after his long absence from the Bart's hockey side.

Team: R. P. Doherty; C. S. Goodwin; J. B. Nichols; D. Godwin; E. J. Batterham; N. C. Roles; H. V. Blake; A. S. Tabor; A. S. Anderson (1); P. Drinkwater (2); D. R. Dunkerley.

1st XI v. Sevenoaks. Won 4-2.

Playing with only ten men on a fast but slippery ground, Bart's started in a determined way and were soon a goal up when Blake scored, following a skirmish in their goal-mouth. Sevenoaks seemed to wake up at this juncture and scored twice, when their forwards split our defence, giving Doherty little chance. Before half-time, however, Batterham scored from a penalty corner to equalise.

In the second half, we had some very good forward movements, in one of which, Dunkerley dribbled down the left wing and sent across a hard centre which Blake managed to flick past their goalkeeper. There followed some desperate defence by Bart's, in which Doherty played brilliantly, twice saving when all seemed lost. We managed to hold out however and just before time were awarded a penalty bully which Anderson took and won, giving us our fourth goal.

Team: R. P. Doherty; H. B. Ross; J. B. Nichols; C. S. Goodwin; E. J. Batterham (1); N. C. Roles; H. V. Blake (2); A. S. Tabor; A. S. Anderson; D. R. Dunkerley (1).

CUP MATCH—1st ROUND**1st XI v. St. George's. Won 11-1.**

This match was played in icy conditions on a decidedly rough and tricky ground at Chislehurst. It is almost impossible to describe this game since Bart's were almost continually on the attack. We started very briskly and were three goals up in the first seven minutes. However, we did not add another until just before half time. Soon after the second half began, the rot started and with almost monotonous regularity the ball was removed from the George's net and returned to the halfway line.

One cannot mention individual names in a team which was so effective because of its teamwork. The forwards, especially, played cleverly, combining devastatingly and taking all chances given to them in the circle. The defence supplied them well and always seemed to have command of the situation.

This was, indeed, a heartening match for Bart's hockey.

Team: J. E. Stark; C. S. Goodwin; J. B. Nichols; D. Godwin; E. J. Batterham; N. C. Roles; J. R. Nicholson (1); A. S. Tabor; A. S. Anderson (4); P. Drinkwater (4); D. R. Dunkerley (2).

1st XI v. Old Cranleighans. Won 3-0.

Still with the thoughts of our eleven goals in the previous match, we took the field with our eyes skinned for further scalps. We soon showed that we meant business, for it was not long before Dunkerley scored a nice goal from the left. There now followed some open play and Bart's missed several opportunities to score. The O.C.'s came back strongly and several times looked dangerous, but time after time one line of defence or another broke up each attack. Doherty especially made his usual quota of brilliant saves, clearing the ball admirably over the heads of their advancing forwards. Not long before half time, Anderson scored after a beautiful solo run.

In the second half, play was not so inspiring. There were missed goals and passes went astray. Our third goal, however, was the result of a good combination. Nicholson took the ball quickly up the wing and sent across a lovely hard pass which Dunkerley took and, drawing the goalkeeper, pushed it neatly past him.

This match certainly showed a new Bart's side—a very fit side, playing robust hockey.

Team: R. P. Doherty; C. S. Goodwin; J. B. Nichols; D. Godwin; E. J. Batterham; N. C. Roles; J. R. Nicholson; A. S. Tabor; A. S. Anderson (1); D. R. Dunkerley (2); A. P. Marks.

CUP MATCH—2nd ROUND**1st XI v. St. Thomas's. Won 3-2.**

We were lucky enough to be able to turn out our full eleven for the first time this season and the results were most satisfactory.

Thomas's were all over us for the first quarter of an hour and, looking back, it is miraculous that they did not score. Attack upon attack was launched, but the defence kept them out somehow, Doherty in goal, surpassing himself with some brilliant saves. Then quite suddenly, something clicked and the Bart's forwards started their attack, which was soon rewarded when Anderson scored. There followed now a furious battle, play going from end to end with great rapidity, but Thomas's definitely had the better of it for by half-time they had scored twice. However, Bart's had had two short corners awarded to them, both of which had been saved on the goal line, so we were by no means despondent when we changed over one down.

Soon after half time, with our forwards using hard accurate passes to each other, Drinkwater sent a beautiful through pass, beating the defence, which Anderson took on to score. 2—2 and still lots of time to go. Could Bart's possibly hold out; they are notorious for giving the game away near the end. Not a bit of it, though, the whole side played as though their lives depended upon the result and they held out, for at the final whistle it was still 2—2. Mention must be made here of Drinkwater's fine play during this half, for he not only was most dangerous in attack, but managed to find time for defence as well, almost completely obliterating Paddle, the Thomas's inside-right, whose reputation we most feared. He was also helped in this by some sterling work by Nichols, whose great coolness, in a dangerous situation inspired the rest of the side.

We now embarked on twenty minutes of extra time with the light failing and both sides grimly determined to get that last goal. Soon Bart's were awarded a penalty corner and, with a borrowed stick (for he had just broken his own), Drinkwater sent in a very hard shot which never gave their defence a chance. The match could not now have ended too soon for us. We managed to hold on to our lead for another fifteen minutes and were even seen to be attempting another goal as the final whistle went.

Team: R. P. Doherty; C. S. Goodwin; J. B. Nichols; D. Godwin; E. J. Batterham; N. C. Roles; J. R. Nicholson; A. S. Tabor; A. S. Anderson (2); P. Drinkwater (1); D. R. Dunkerley.

1st XI v. Lloyd's Bank. Lost 6-3.

This was an unfortunate result, due in a large degree to a complacent apathy after our victory in the Cup Match. We did not have a full side, but this was no excuse for the bad lapse in the second half which cost us the match. It was a game of varying fortunes, for Bart's started well and looked to be well in command, scoring early on in the match. Towards half time however, Lloyd's came into their own and had scored two goals before changing over. Soon after half time we scored again but there followed the lapse mentioned earlier when four goals were scored against us, partly due to the Lloyd's forwards playing

very well together, but mostly to careless tackling and hitting on our part. Towards the end, the fire returned, but although we added our third goal, it was too late.

Team: R. P. Doherty; J. B. Nichols; H. B. Ross; C. S. Goodwin; E. J. Batterham; D. Godwin; J. R. Nicholson; A. S. Tabor; A. S. Anderson (2); N. C. Roles (1); H. V. Blake.

LADIES' HOCKEY

The Women's Hockey Club began the season with team trials on October 3rd, 1956, at Chislehurst. The twenty players attending the trials included several newcomers, whom we were very pleased to welcome. The first match of the season against our neighbours, The Middlesex Hospital, resulted in a resounding victory for Bart's of 11-0 goals, a stimulating start to the season, and, we hoped, a reflection of things to come. However, not a week passed before our record was broken, as we were defeated by Queen Mary College by 1-3 goals. Spirits were soon raised again following the victory over King's College, London, by 5-3 goals on 20th October, so bringing an end to their 2-year record without defeat. This was an excellent match, with good positioning among the half and back lines, and some well planned co-ordinated movements by the forwards.

OXFORD TOUR

This year the annual tour was spent in Oxford over the week-end 2nd-5th November, where four matches had been arranged. The first was against University College, who confidently fielded a team consisting of 1st and 2nd XI players, the goalie well wrapped up and prepared for nothing but an occasional glimpse of the ball. Before long, however, the Bart's team netted a splendid goal, but an equaliser soon brought the score to 1-1. After half-time, another goal by Miss Swallow came as a surprise to the hard-worked goalie, who revealed remarkable agility in defending all four corners of his goal. This slender lead was maintained throughout most of the second half, despite repeated attacks on our goal, both on the ground and otherwise, which we were assured were not a personal attack on our excellent goalie, Miss Isobel Tomkins, undoubtedly the heroine of the match. A final concerted effort by our opponents brought the score to 2-2, and with minutes to go, and stiffness setting in, an airborne shot by our forwards was prevented from reaching the net by the outstretched hand of the goalie. Unfortunately, a goal was not realised from the resulting penalty bully, and U.C. emerged worthy winners by a goal scored as the final whistle blew. After the game, we were entertained by U.C., who subsequently proved to be excellent hosts for the rest of the week-end. Unfortunately, two matches were cancelled, but again U.C. stepped into the breach, and it is to

them that we are indebted for such an enjoyable week-end, both on and off the field.

On Monday, Lady Margaret Hall were defeated by 10-0 goals, our own goalie stemming the flow of goals by offering to defend the empty L.M.H. goal after half time.

CUP MATCHES

London University Inter-Collegiate Knockout Tournament.

The team reached the quarter-finals without difficulty. A decisive victory over Royal Holloway College 2nd XI by 9-2 goals was followed on 10th November by a second easy win over Chelsea Polytechnic by 9-0 goals. University College, London, proved to be our stumbling block; in a hard-fought match at Chislehurst, their quickness on to the ball and superior combining together of the forwards earned them a 2-1 victory. May we wish them luck in succeeding rounds.

Inter-Hospital Tournament.

The first round was played on 24th November versus St. Mary's Hospital and resulted in a win for Bart's by 4-2 goals.

The teams have largely consisted of the following: Isobel Tomkins; Jill Tufft; Audrey Woolf; Margaret Childe; Jennifer Hall; Angela Tressider; Elizabeth Knight; Lorna McPhail; Pat Kielty; Jennifer Angell-James; Jean Arnold; Judy Wilson; Janice Swallow; Shiela James; Jennifer Hartley; Jane Chambers (Captain).

SQUASH

The Squash season began with trials which were held on Monday and Tuesday, 8th and 9th October. These revealed some promising players, and included a number from Charterhouse.

We have had a bad season so far, owing in part to the great difficulty in getting our best players together, and we are lying bottom of our division in the Cumberland Cup. However, the end of the exams., and the return of our captain, M. J. Scorer, after his injury, should see us winning some matches in the latter half of the season.

FENCING CLUB

The Club would like to draw the attention of students to the opportunities available for those who are drawn towards this agile sport. For the person with past experience in fencing, there is the chance to "Take Sword" against Club members. For those who have no previous knowledge, tuition is available from our Instructor,

Professor Delzi. For all members, there are the lessons given during the Club practices on each Wednesday afternoon, by Professor Delzi. These practices continue throughout each term of the year. The Club provides all equipment: weapons, masks, gloves, jackets. Practice is in the Gymnasium, Charterhouse. At the A.G.M., the following were elected officers for the Season 1956-57:

Captain: K. J. Sugden.

Secretary: B. M. J. McGrath.

Treasurer: J. Parker.

Committee: J. Townsend; M. Woolnough.

Over the Season 1955-56, the Men's Teams fought 7 matches, winning against St. Thomas' Hospital and against The Middlesex Hospital. The Women's Team lost 8:4 against The Royal Free.

So far this season, three matches have been fought: a match of 3 Foil; Epee; Sabre was lost to Guy's Hospital; a match of 3 Foil was lost 3 Bouts to 6, against The Middlesex Hospital; finally, a match of 4 Foil was won against The Westminster Hospital, by 10 bouts to 6.

ATHLETICS

The A.G.M. of the Athletic Club was held on 30th October, 1956, when the following Officers were elected for the 1957 Season:

President: Dr. C. F. Harris.

Captain: A. S. Tabor.

Vice-Capt.: C. Prys-Roberts.

Hon. Sec.: B. D. G. Hill.

Hon. Treas.: J. Hedley-White.

Dr. A. E. Dormer was elected as a new Vice-President.

It was decided that Vice-Presidents no longer on the Hospital Staff should be elected Hon. Life Members, together with notable ex-Bart's athletes. Four Hon. Life Members were elected, namely:

Sir Adolphe Abrahams.

Dr. A. S. Wint.

Dr. K. Backhouse.

Mrs. C. W. H. Harvard (née Bott).

HOSPITAL RUGGER CUP

1956 - 57

1. BYE		Guy's	Thurs. Jan. 17th	Tuesday February 26th
2. BYE		St. Bart's		
3. BYE		St. Thomas's	Tues. Feb. 5th	
4. MIDDLESEX	Tues. Jan. 8th	_____		
5. CHARING CROSS				WEDNESDAY MARCH 20th
6. WESTMINSTER	Thurs. 10th Jan.		Thurs. Feb. 7th	
7. KING'S				
8. BYE		St. Mary's	Thursday February 28th	
9. ST. GEORGE'S	Tues. Jan. 15th	_____	Tues. Feb. 12th	
10. U.C.H.				
11. BYE		London		

(The 'A' XV will play according to the same draw, except that it plays the Royal Free in the first round. Dates refer to 1st XV matches.)

BOOK REVIEWS

That writer does the most who gives his reader the most knowledge and takes from him the least time. — COLTON.

A MANUAL OF HUMAN ANATOMY by J. T. Aitken, G. Causey, J. Joseph and J. Z. Young. E. & S. Livingstone Ltd. 1956. Vol. I (Thorax and Upper Limb), price 14s. Vol. II (Head and Neck), price 16s. Vol. III (Lower Limb), price 12s. 6d.

It is the declared intention of the authors of this new manual to give the student "a method of dissecting the body and to guide him as to the extent of the knowledge expected of him in the second medical examination . . . Much detail has been omitted." The truth of the latter statement is amply evident on reading the text, but opinions will naturally vary as to whether the deliberate omissions are, in the light of clinical requirements, in all cases justifiable. The endeavour to condense and simplify has certainly led to some laxity of statement; thus, the thoracic sympathetic chain is said to lie on the necks of the ribs, the ulnar nerve to be subcutaneous in the forearm and the femoral artery to give off medial and lateral circumflex femoral arteries. Instances of a similar lack of precision are very numerous in volumes I and III.

In volume I errors of fact occur too frequently: thus, the extensor carpi radialis longus is stated to form the lateral wall of the cubital fossa, the brachial artery to divide at the apex of the fossa and the ulnar nerve to pass through the flexor retinaculum, while three papillary muscles are described for the right ventricle.

In volume III there is a marked general lack of topographical precision: thus, the nerve to quadratus femoris, the internal pudendal vessels and nerve and the obturator artery are completely ignored, the nerve supply of the soleus muscle is given as the medial popliteal nerve alone and the anterior talo-calcaneo-navicular joint is described without reference to the bifurcate ligament. Brief accounts of cutaneous innervation and of lymphatic drainage are given at the end of the volume but the deep lymph drainage of the gluteal region passes unmentioned. Throughout this volume there is an emphasis on functional considerations which would be admirable were it more firmly based on adequate topographical considerations. Many of the detailed accounts of muscle actions, for example, lose in value from want of more precise information concerning relevant muscle attachments.

Volume II brings a rather refreshing approach to the study of the head and neck. Though less topographical detail has been sacrificed, there remain, however, many minor defects and errors in both the text and the diagrams.

In overall review of these first three volumes it is fair to state that the authors have attempted a new approach to anatomical dissection which,

except in the case of volume II, falls far short of the ordinary requirements of the medical student as the curriculum is now constituted. In spite of the authors' claim to satisfy second M.B. requirements, the use of this new book must entail a continual reference to larger systematic works both to obviate dubieties and to ensure that sufficiency of topographical knowledge necessary for successful clinical work.

OUTLINE OF BACTERIOLOGY AND IMMUNITY by Ronald Hare. Longmans, Green & Co., Ltd., London. IX+418 pp. 35s.

In the introduction to this admirable new book Professor Hare points out that in teaching and hospital practice attention is often given chiefly to diagnostic bacteriology, sometimes to the exclusion of wider aspects such as immunology and epidemiology. Here, based on lectures given to clinical students at St. Thomas's Hospital, is an exposition of the relationship of micro-organisms to man in health and disease, in which viruses are accorded equal status with bacteria. As a result of this policy approximately two-thirds of the book is taken up with a lively and readable account of general problems concerning the life and death of bacteria, the way they and viruses spread and cause infection, and how we react to them. Tucked away in the remaining pages are relatively short accounts of bacteria, fungi, spirochaetes, rickettsiae, viruses and bacteriophages.

For someone looking for a general account of immunology, how infection is transmitted, or another of the contents of the first section, this book can be strongly recommended. Those faced with a particular problem might wish that in the next edition more will be said about individual bacteria, and that a little more space will be given to utilitarian bacteriology.

Chemotherapy and the problems of cross-infection have produced a quickening interest in the natural history of bacteria. Professor Hare is to be congratulated on providing a guide to this interesting and not unimportant subject.

R. H. SHOOTER.

AN ATLAS OF DISEASES OF THE EYE by E. S. Perkins & P. Hansell. J. & A. Churchill Ltd., London. 42s.

It is indeed unfortunate for the future General Practitioner and his patient that in most medical schools the crowded curriculum has now reduced the study of diseases of the eye to six or less attendances at an Out patient clinic and about four lectures, which are voluntary.

It is evident from the tragedies of missed glaucoma, unrecognized intra-ocular neoplasms and

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H. B. STALLARD.

NEW EDITION

PRICES TEXTBOOK OF THE PRACTICE OF MEDICINE 9th edition *edited by* Donald Hunter. Oxford University Press. Pp. 1,774. 63s.

This well-known textbook has undergone several changes since the last edition four years ago. Dr. F. W. Price has resigned from the editorship, and in honour of him the title has been enlarged to include his name. This will make little difference to students who have long been in the habit of referring to the book as 'Price'.

During the complete resetting which accompanied the change in form the text has been completely revised. Although the reduction in the number of pages is to be welcomed, it is a pity that this has partly been achieved at the expense of the illustrations. The complete lack of figures is a serious disadvantage. In cardiology in particular, it is difficult to understand electrocardiographic changes without being able to see examples. Therefore this book cannot be recommended to students who require an introduction to medicine; it should be regarded purely as a work of reference, and as such may usefully be included in any doctor's library.

J.T.S.

BOOKS RECEIVED

Inclusion in this column does not preclude review at a later date.

CONCISE ANATOMY, 2nd ed. by Linnen F. Edwards. McGraw-Hill. Pp. 502. 49s.

AIDS TO BIOLOGY, 4th ed. by W. H. Neville. Baillière, Tindall and Cox. 8s. 6d.

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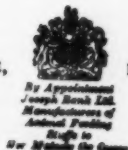
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